

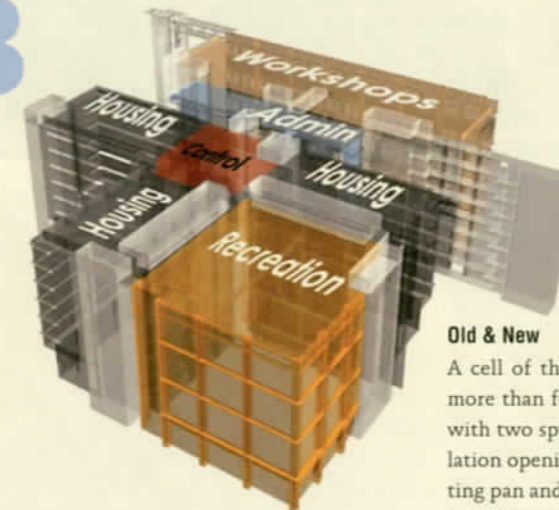
SUPER-UTILITARIAN HIGH-RISE PRISON LIVING SINGAPORE PRISON SERVICE, CHANGI PRISON COMPLEX CLUSTER B

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An ongoing project started in 2000, the Redevelopment of Changi Prison Complex encompasses the construction of four clusters of institutions, support facilities and Prison HQ. In this special feature, Andy Goh Kee Joon takes a tour of the new Cluster B to investigate how CPG Consultants have adapted the typology for the tropics.



RIGHT The staircase with its open risers is designed to minimise view obstruction.



CHANGI CLUSTER B DISTRIBUTION DIAGRAM

Old & New

A cell of the old Changi Prison consisted no more than four solid walls, a hinged iron door with two spy holes, two small high-level ventilation openings, a raised platform with a squatting pan and a chain-type flush handle hanging from the wall above, an emergency bell, and a fluorescent ceiling lamp.

The high-level openings located opposite each other have vertical iron bars cast into them. Two layers of metal mesh, one on each side of the bars, have layers of rust so thick and so brittle that when the rainy season arrives, the winds dislodge these rust particles into the cells.¹

From inside the cell, there is no view and the only way to catch a glimpse of the world outside is by standing on the shoulders of a fellow inmate.² Other fixtures in this space—the squatting pan, emergency bell and fluorescent lamp—complement the strictly spartan setting, fit (only) for prison living.

Prisoners had to walk a good distance from their cells to the workshops, yards and other areas. The layout of the prison was spread out, built in a time when land scarcity was not as apparent yet.

With the old Changi Prison recently demol-

ished, leaving behind only a 180-metre wall for remembrance, the new Changi Prison Complex, consisting of four Clusters (A, B, C and D) will now replace the land occupied by the old Changi Prison, Moon Crescent Prison and Jalan Awan Prison.

Cluster A of this new master plan was completed in 2004 and Cluster B was officially opened in January 2010. Schedules for constructing Clusters C and D are still under review. Most of the country's incarcerated are already housed in Clusters A and B, and there are only three prison institutions remaining outside the complex.

At First Glance

Looking from a distance, there is a strong resemblance between the blocks of the Prison Cluster B and a typical HDB public housing block. These two building types are alike in terms of the brightly painted exterior walls, disciplined composition of the building elevations, height of building and the spacing between blocks.

While alike in appearance and performing the same fundamental function of housing, every other aspect of Cluster B is different. A walk through the Cluster redefines one's understanding of typical architectural terminologies.

PROJECT CREDITS

ARCHITECT CPG Consultants Pte Ltd
PROJECT MANAGER PM Link
CLIENT Singapore Prison Service
CIVIL & STRUCTURAL ENGINEER CPG Consultants Pte Ltd
MECHANICAL ENGINEER CPG Consultants Pte Ltd
QUANTITY SURVEYOR CPG Consultants Pte Ltd
MAIN CONTRACTOR Shimizu Corporation
DATE OF COMPLETION Jan 2009



The maximum horizontal distance that a prisoner travels is probably 150 metres and involves the use of numerous mechanically and electronically controlled doors and CCTV monitoring for security.



Entering Cluster B

The consciousness of the prison environment is felt after passing layers upon layers of security measures. The multi-layered six-metre-high metal weld mesh fence crowned with concertina barbed wire forms the first line of defence. The weld mesh fence then terminates at the sides of a building fitted with 4.9-metre-high sliding iron doors which provide further impenetrability. Behind these super-sized doors are lanes for vehicular checks before vehicles are allowed to proceed deeper into the compound. Visitors³ by foot enter through a separate entrance next to these iron doors.

Once inside, security checks include registering at the counter, giving up almost all of one's personal belongings, and going through a metal detector. One then proceeds through a corridor that leads to a metal grille door. This door, similar to the ones used in securing the housing units, demarcates the "boundary" between freedom and confinement. The idea behind this elaborate setup is simple—no one should enter and leave easily.

Entering and walking past the staff administration building, the presence of a courtyard space forms the centrality of the Cluster. This quadrangle is flanked by a sheltered corridor that leads to all the blocks (referred to as institutions) and the composition of the building elevations is a direct result of function. The fenestration provides the service corridors of the day rooms and cells with light and ventilation. These windows, situated at high level on the inside the buildings, are sheltered by the concrete ledges which act as horizontal and vertical sun-shading devices. On the window itself, vertical metal grilles, together with an expanded metal sheet, further limit the view, sufficing only to provide natural ventilation and diffused light to the spaces within. From the courtyard, two anomalies are already observed—the courtyard does not function as a communal space and the fenestrations are not primarily for views.

High-rise Prison Living

Minimal prisoner movement is intended and this is to reduce security risk and increase efficiency. A prisoner's movement is restricted to his housing unit which consists of two floors of a building or institution. His daily movements consist only of travelling to and from the cell/day room⁴ to primarily the yard, dining hall or workshop. The laundry and special function areas (such as the room for teleconferencing) are located en route to these areas, while the counselling rooms are on the upper level. The maximum horizontal distance that a prisoner travels is probably 150 metres



OPPOSITE, TOP & BOTTOM Cluster B (minus the high fence) looks almost identical to a typical HDB block.

4.9-metre-high sliding iron doors provide further impenetrability.

TOP Courtyard and elevations of Cluster B.

BOTTOM, LEFT The windows are sheltered by the concrete ledges which act as sun-shading devices.

BOTTOM, RIGHT The fenestration provides the service corridors of the day rooms and cells with light and ventilation.



CLOCKWISE FROM TOP LEFT Prisoners spend an hour in the yard every day; Fenestrations in the yard are not designed for views; The control station has direct views into the day rooms; The dining hall is compact and prisoners from different day rooms of the same housing unit take turns to have their meals; The column-free space ensures that no corner is hidden from view; A typical day room with its fixtures.

OPPOSITE Prison architecture is ultra-utilitarian and efficient.

and involves the use of numerous mechanically and electronically controlled doors and CCTV monitoring for security.

Contrary to conventional high-rise living where inhabitants manoeuvre between levels, prisoners of this new Cluster are limited to movement within only two floors of the institution.

For most of his time here, a prisoner may never have much direct contact with the ground and sunlight. It takes time to adjust to prison life⁵ and high-rise prison living, knowing that for a long time, the true colours and definition of the world outside will never be seen without the layers of security measures between.

The Transparency Within

Within the same two-level-high housing unit, a control station set up in the centre of the three radiating⁶ wings of the cells and day room provide panoptical monitoring. With this arrangement, there is a clear line of view to the day rooms. Within the day rooms, there is an unobstructed column-free view into every corner of the room. This clear view persists from the corridor into the cells through the vision panel. There are no hidden corners inside the cells and within the day rooms.

The "minimalist" staircase with its open risers is not so much an expression of modern architecture but an element designed to minimise view obstruction. To the rear of the day room, a movable book rack containing reading material is made of metal mesh, again to allow a clear view of the space behind the rack.

The cells are not too different spatially from the ones in the previous prison except that they feature large windows instead of two slots, a shower area with squatting pan (and a flush button in the wall), and an intercom (instead of an emergency bell). Although these improvements may seem minor, they should not be underestimated, as they contribute tremendously to the quality of life for the prisoners.

The Singapore Prison Service's strong emphasis on high security is fulfilled by architectural devices such as the panoptical arrangement of day room and cells, creation of double-volume spaces and open thread staircases.

Conclusion

More than just challenging one's concept of courtyards, yards, high-rise living, fenestrations and transparency, the prison fuses together construction, technology and operational procedures to create an architecture that is ultra-utilitarian, efficient and undoubtedly purpose-built. ■

¹ This is described by Mandy Ong, in page 25 of *Life in Singapore Changi Prison Book 1*, Pacific Distribution, 2002. She writes of how these rust particles cause great discomfort to the prisoners' eyes.

² Mandy Ong and Qing Zhan Hu, *Life in Singapore Changi Prison Book 1* (Pacific Distribution, 2002), 26.

³ Visitors wishing to communicate with inmates will have to wait at the Prison Link Centre and the procedures are different to what is described here.

⁴ The prisoner sleeps in the cell and is released into the space outside called the "day room." It is a common area which has reading materials and a television set.

⁵ An article "Singapore prisons: Spartan with humane touches" taken from *The Straits Times* dated 11 August 2008 questions the long-term effects of being locked up in a cell with no ground contact.

⁶ Prison design typologies include the typical radial prison, telephone pole layout, courtyard plan and the "new generation prison." Just like any other type of building type, "every shape known to geometry was tried: radials, cruciforms, telephone poles, rectangles, courtyards, triangles, squares, T-blocks, and finally back to radials. Buildings ranged from huge Victorian prisons with open tiers of cells in wings radiating from a central observation point, to smaller-scale closed-corridor prisons. More recently, the new generation designs enclose a large association space with two low tiers of cells spread along three sides." Quotes extracted from page 17 of *Prison Architecture: policy, design, and experience* by Leslie Fairweather, Sean McConville (Architectural Press, 2000).

